

AMENDMENTS TO CLAIMS:

[The listing of claims will replace all prior versions, and listings, of claims in the application:]

Listing of Claims:

[Claims 1-3, 6, 7 and 10 have been amended; claims 11-17 have been deleted and claims 18-33 have been added.]

1. (Currently Amended) A system for enhancing an audio system, the audio system delivers audio output to an audio output terminal, said system comprising:

a wireless transmitter that connects to the audio output terminal to receive the audio output and wirelessly transmits signals corresponding to the audio output; ~~the audio output provided by the audio system;~~ and

a personal audio device usable by a user to hear the audio output, said personal audio device including at least:

a wireless receiver capable of receiving the ~~audio output~~ wirelessly-transmitted signals by said wireless transmitter;

~~a data store for storing user information;~~

a controller operatively connected to ~~said data store and said wireless receiver, said controller operates to produce customized audio output by modifying the audio output received by said wireless receiver based on the user information;~~ and

a speaker operatively connected to said controller; ~~said speaker produces an audio sound output in accordance with the customized audio output.~~

wherein said system further includes a data store for storing user information.

wherein said system generates a customized audio output based on the audio output and the user information, and

wherein said speaker produces an audio sound output in accordance with the customized audio output,

2. (Currently Amended) A system as recited in claim 1,
wherein said data store is included in said personal audio device,
wherein said controller operatively connects to said data store, and
wherein said controller operates to produce the customized audio output based on the audio output and the user information ~~said speaker is a directional speaker.~~

3. (Currently Amended) A system as recited in claim 1 ~~claim-2~~, wherein said controller produces ultrasonic drive signals based on the customized audio output and supplies the ultrasonic drive signals to said directional speaker for output of the audio sound output in a directionally constrained manner.

4. (Previously Presented) A system as recited in claim 1, wherein the user information comprises a user hearing profile.

5. (Previously Presented) A system as recited in claim 1, wherein the user information comprises at least one user preference.

6. (Currently Amended) A system as recited in claim 1,
wherein said personal audio device further obtains environmental information pertaining to the vicinity of said personal audio device, and

wherein the customized audio output ~~produced by said controller~~ is further dependent on the environmental information.

7. (Currently Amended) A system as recited in claim 6, wherein the environmental information includes at least a noise level, and wherein the output volume of the audio sound output is dependent on the noise level.

8. (Previously Presented) A system as recited in claim 6, wherein said personal audio device further comprises:

at least one environmental sensor that acquires the environmental information.

9. (Previously Presented) A system as recited in claim 6, wherein the environmental information is determined based on a position of said personal audio device or the user.

10. (Currently Amended) A system as recited in claim 1,

wherein said data store is included in said wireless transmitter, and

~~for enhancing an audio system, the audio system delivers audio output to an audio output terminal, said system comprising:~~

~~a wireless transmission apparatus that connects to the audio output terminal to receive audio output from the audio system and wirelessly transmits a customized audio output, said wireless transmission apparatus including at least:~~

~~a data store for storing user information; and~~

wherein said wireless transmitter a first controller operatively connected to said data store, said first controller operates to produce the customized audio

~~output by modifying based on the audio output received by said wireless transmission apparatus based on and the user information.; and~~

~~a personal audio device usable by a user to hear the customized audio output, said personal audio device including at least:~~

~~a wireless receiver capable of receiving the customized audio output transmitted by said wireless transmission apparatus;~~

~~a second controller operatively connected to said wireless receiver to receive the customized audio output that has been received, said second controller further converts the customized audio output into audio output signals; and~~

~~a speaker operatively connected to said second controller, said speaker produces an audio sound output in accordance with the audio output signals.~~

Claims 11-17 (Cancelled).

18. (New) A system as recited in claim 1, wherein the audio system is an entertainment system.

19. (New) A system as recited in claim 1, wherein said data store is portable and removable from said system.

20. (New) A system as recited in claim 1, wherein said personal audio device is wearable by the user.

21. (New) A system for enhancing an audio system, the audio system delivers audio output to an audio output terminal, said system comprising:

a wireless transmitter that connects to the audio output terminal to receive the audio output and wirelessly transmits signals corresponding to the audio output; and

a personal audio device usable by a user to hear the audio output, said personal audio device including at least:

a wireless receiver capable of receiving the wirelessly-transmitted signals by said wireless transmitter;

a controller operatively connected to said wireless receiver; and

a directional speaker operatively connected to said controller, said speaker produces a directional audio sound output in accordance with the audio output,

wherein the directional audio sound output is an audio sound output that is directionally constrained.

22. (New) A system as recited in claim 21, wherein the signals driving the speaker are ultrasonic drive signals that are supplied to said directional speaker for output of the directional audio sound output.

23. (New) A system as recited in claim 21, wherein the directional audio sound output by said directional speaker is substantially confined to a predetermined direction plus or minus 15 degrees.

24. (New) A personal audio device usable by a user to hear audio sound, said personal audio device comprising:

a controller for transforming audio data into speaker drive signals; and

a directional speaker operatively connected to said controller, said speaker produces a directional acoustic output in accordance with the speaker drive signals, the directional acoustic output being an audio sound output that is directionally constrained.

25. (New) A device as recited in claim 24, wherein said personal audio device further comprises:

a wireless receiver capable of receiving the audio data that are transmitted to said personal audio device by a wireless transmitter.

26. (New) A device as recited in claim 24, wherein the speaker drive signals are ultrasonic drive signals that are supplied to said directional speaker for output of the directional acoustic output.

27. (New) A device as recited in claim 24, wherein, when said controller produces the speaker drive signals, said controller takes into consideration an audio characteristic of the user.

28. (New) A device as recited in claim 27, wherein the audio characteristic is provided to said personal audio device by a removable, portable data storage device that can operatively connect to said personal audio device.

29. (New) A method for providing audio sound output from an audio output apparatus to a user in a wireless manner, said method comprising:

receiving audio signals at a wireless audio adapter that is attached to an audio output port of the audio output apparatus, the audio signals being provided by the audio output apparatus via the audio output port;

wirelessly transmitting the audio signals to a personal audio device that has a directional speaker; and

producing audio sound output using the directional speaker, the audio sound output being based on the audio signals, and the audio sound output being in a directionally constrained manner.

30. (New) A method as recited in claim 29, wherein said producing comprises:

generating ultrasonic drive signals based on the audio signals for the directional speaker.

31. (New) A method as recited in claim 29, wherein said producing comprises obtaining user information pertaining to a user of the personal audio device,

wherein the audio sound output being produced is further based on the user information.

32. (New) A method as recited in claim 31, wherein the user information comprises an audio characteristic associated with the user.

33. (New) A method as recited in claim 29, wherein said producing comprises obtaining at least one environmental characteristic pertaining to the vicinity of the personal audio device,

wherein the audio sound output being produced is further based on the at least one environmental characteristic.